ABSTRACT OF THE DISCLOSURE

A gate electrode is formed over a semiconductor region with a gate insulating film interposed therebetween. An extended high-concentration dopant diffused layer of a first conductivity type is formed in part of the semiconductor region beside the gate electrode through diffusion of a first dopant. A pocket dopant diffused layer of a second conductivity type is formed under the extended high-concentration dopant diffused layer through diffusion of heavy ions. The pocket dopant diffused layer includes a segregated part that has been formed through segregation of the heavy ions.